FIGURE 1

FIGURE 2

300

RECEIVE A
MUSIC PIECE TO
BE CLASSIFIED

302

IS SINGING
VOICE DETECTED
IN THE MUSIC
PIECE?

NO   YES

304

LABEL MUSIC
PIECE AS
INSTRUMENTAL
MUSIC

306

LABEL MUSIC
PIECE AS
SINGING MUSIC

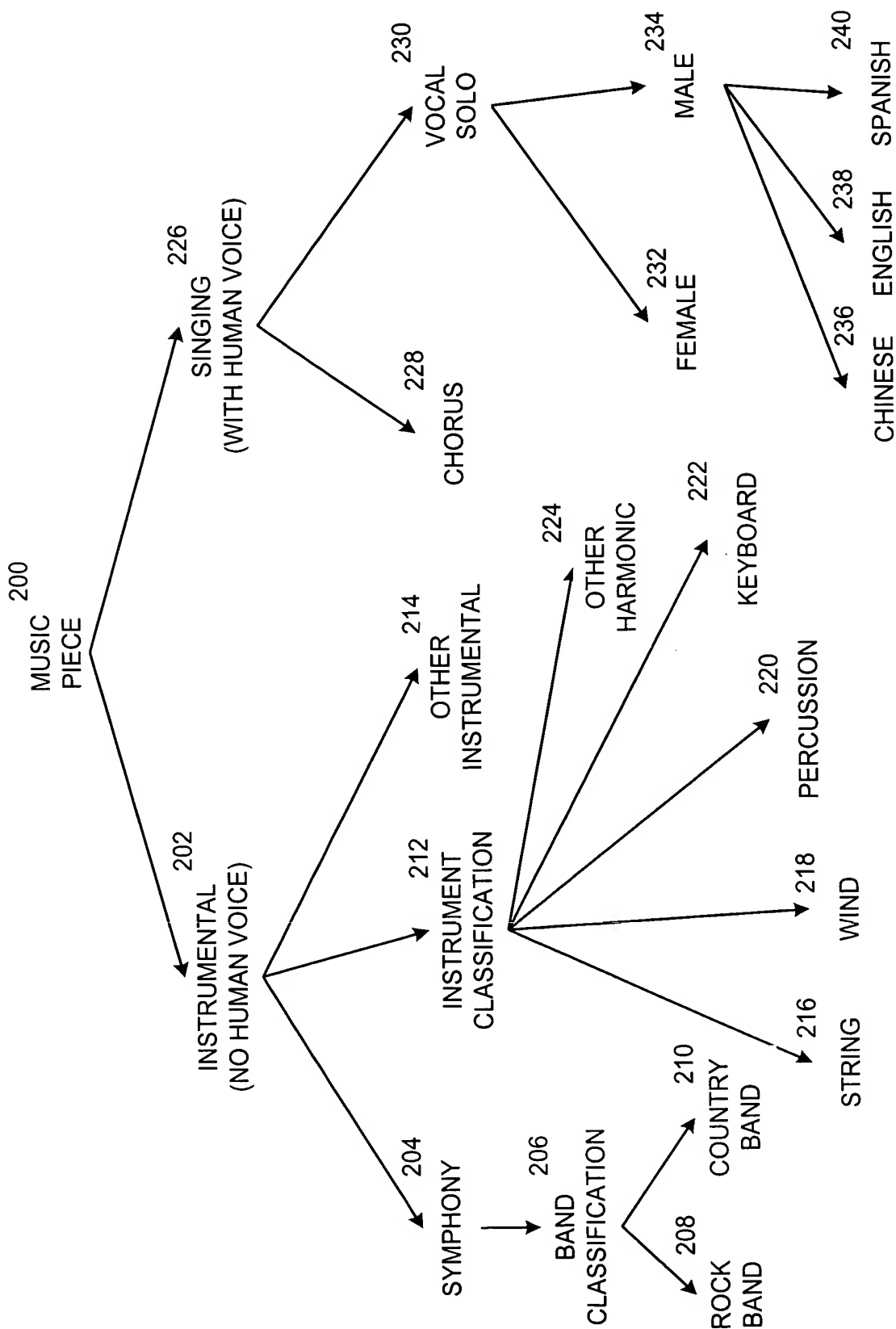FIGURE 3B   FIGURE 3C

FIGURE 3A
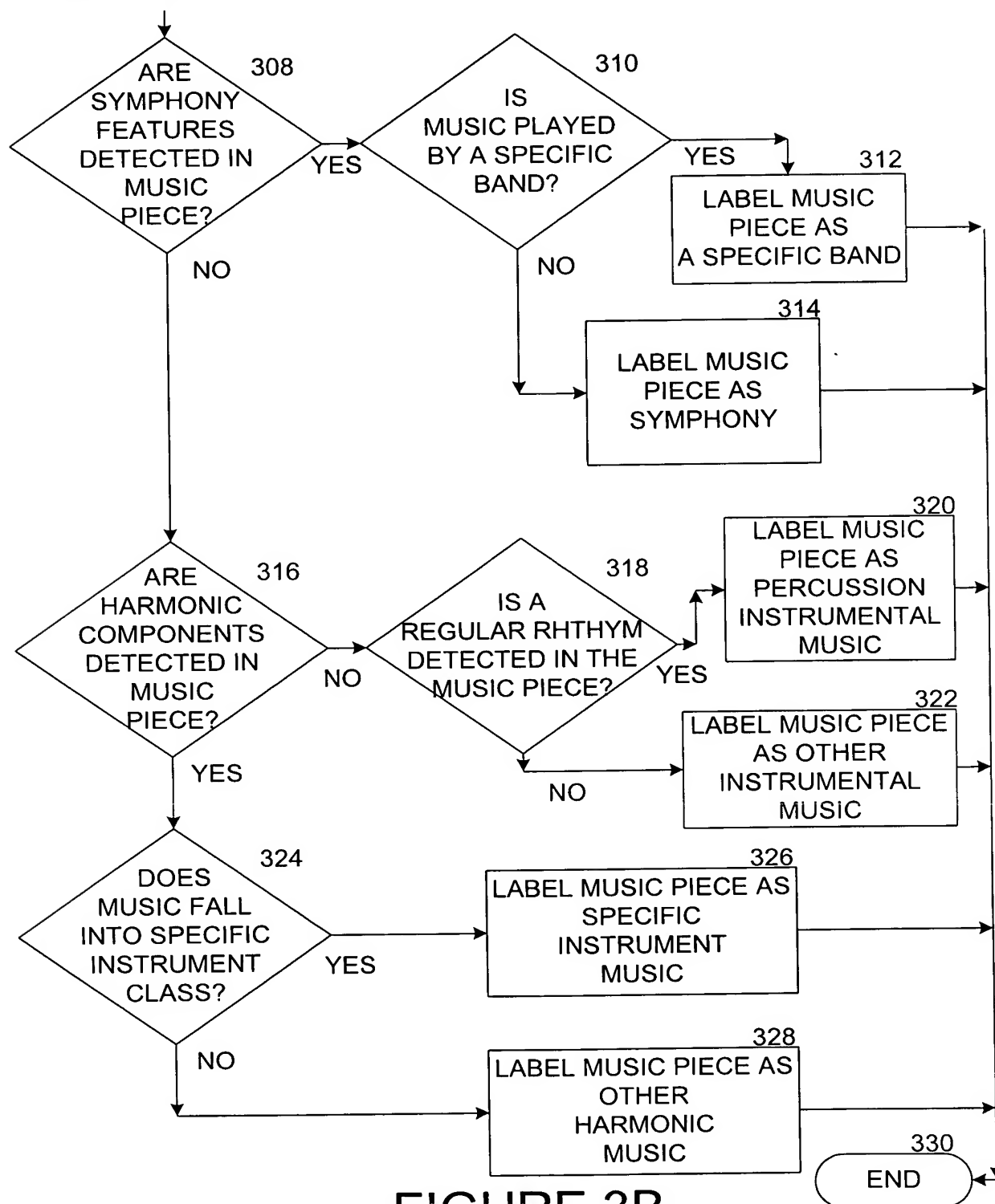
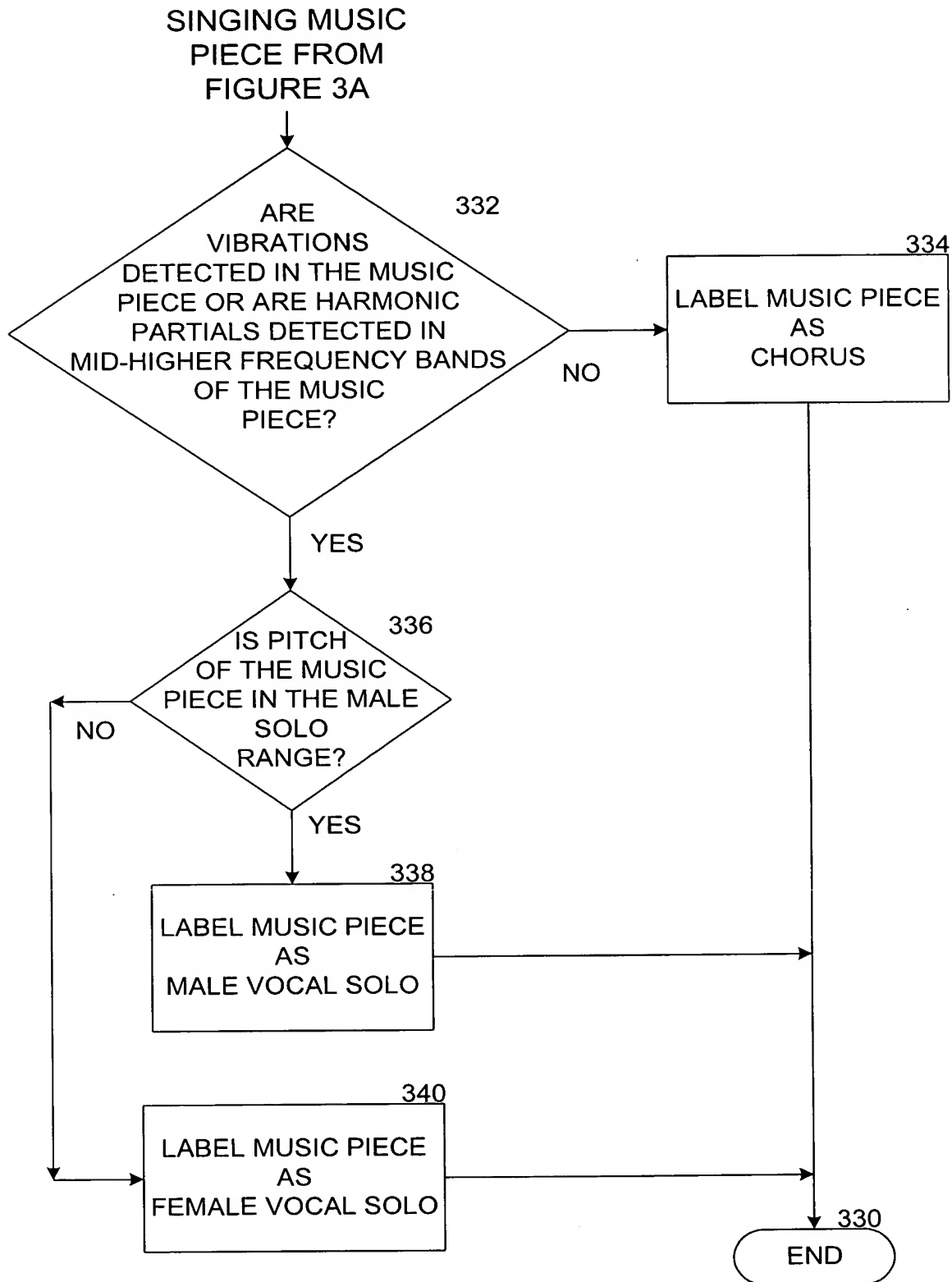INSTRUMENTAL
MUSIC PIECE
FROM FIGURE 3A

FIGURE 3B
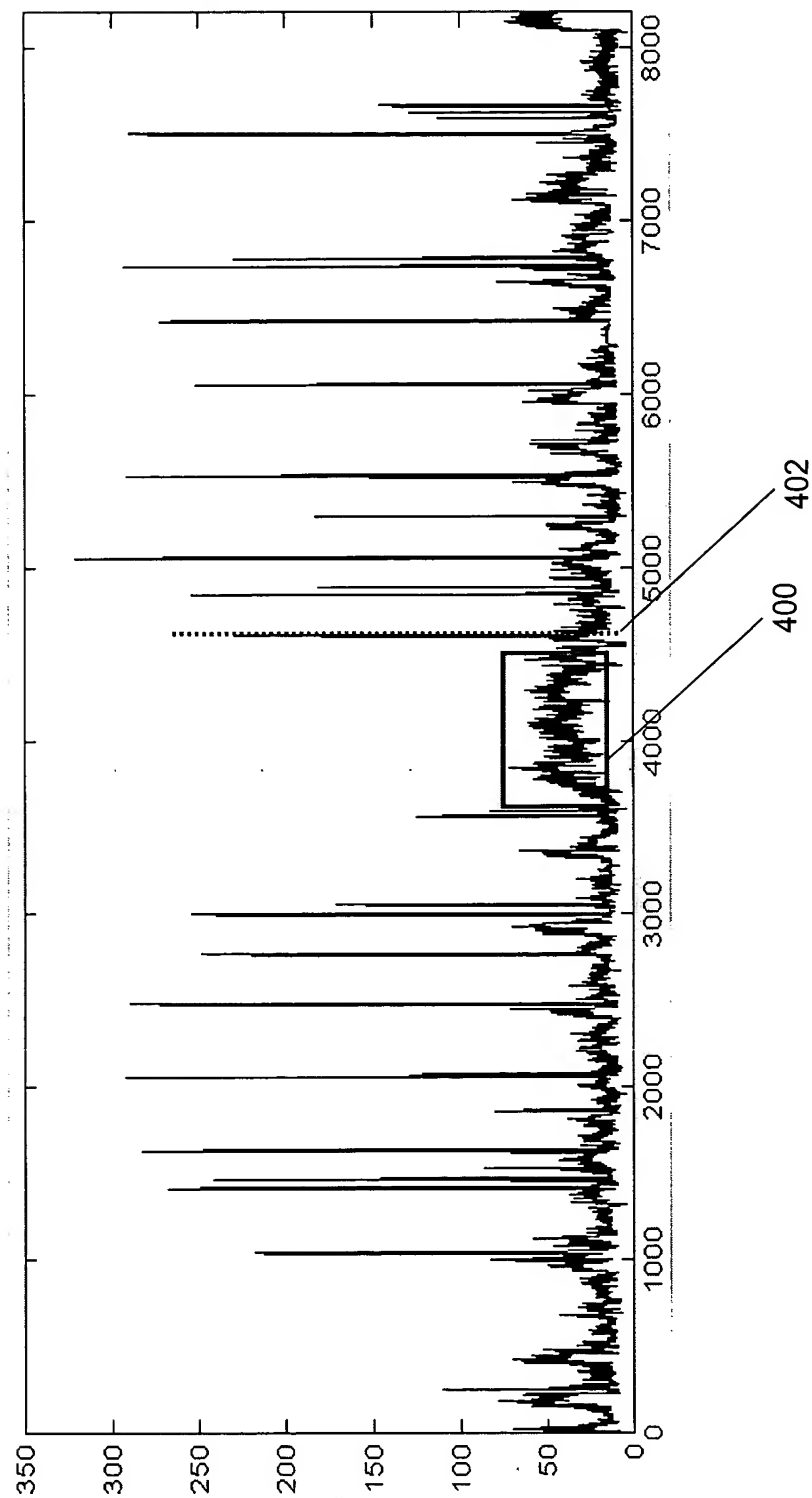
SINGING MUSIC
PIECE FROM
FIGURE 3A

332

ARE VIBRATIONS DETECTED IN THE MUSIC PIECE OR ARE HARMONIC PARTIALS DETECTED IN MID-HIGHER FREQUENCY BANDS OF THE MUSIC PIECE?

NO → 334

LABEL MUSIC PIECE
AS
CHORUS

YES

336

IS PITCH OF THE MUSIC PIECE IN THE MALE SOLO RANGE?

NO

YES

338

LABEL MUSIC PIECE
AS
MALE VOCAL SOLO

340

LABEL MUSIC PIECE
AS
FEMALE VOCAL SOLO

330

END

FIGURE 3C

FIGURE 4

FIGURE 5A
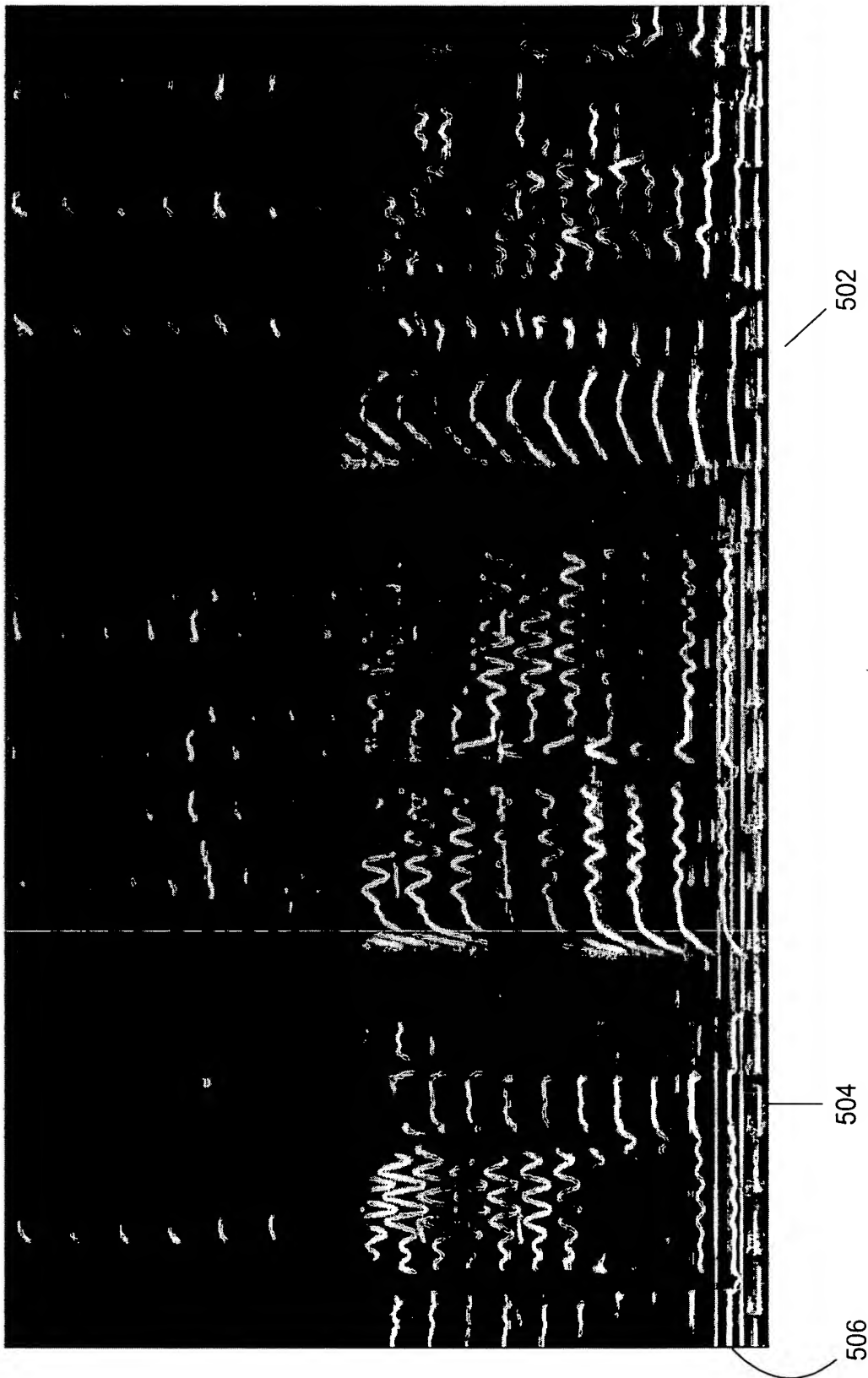
FIGURE 5B
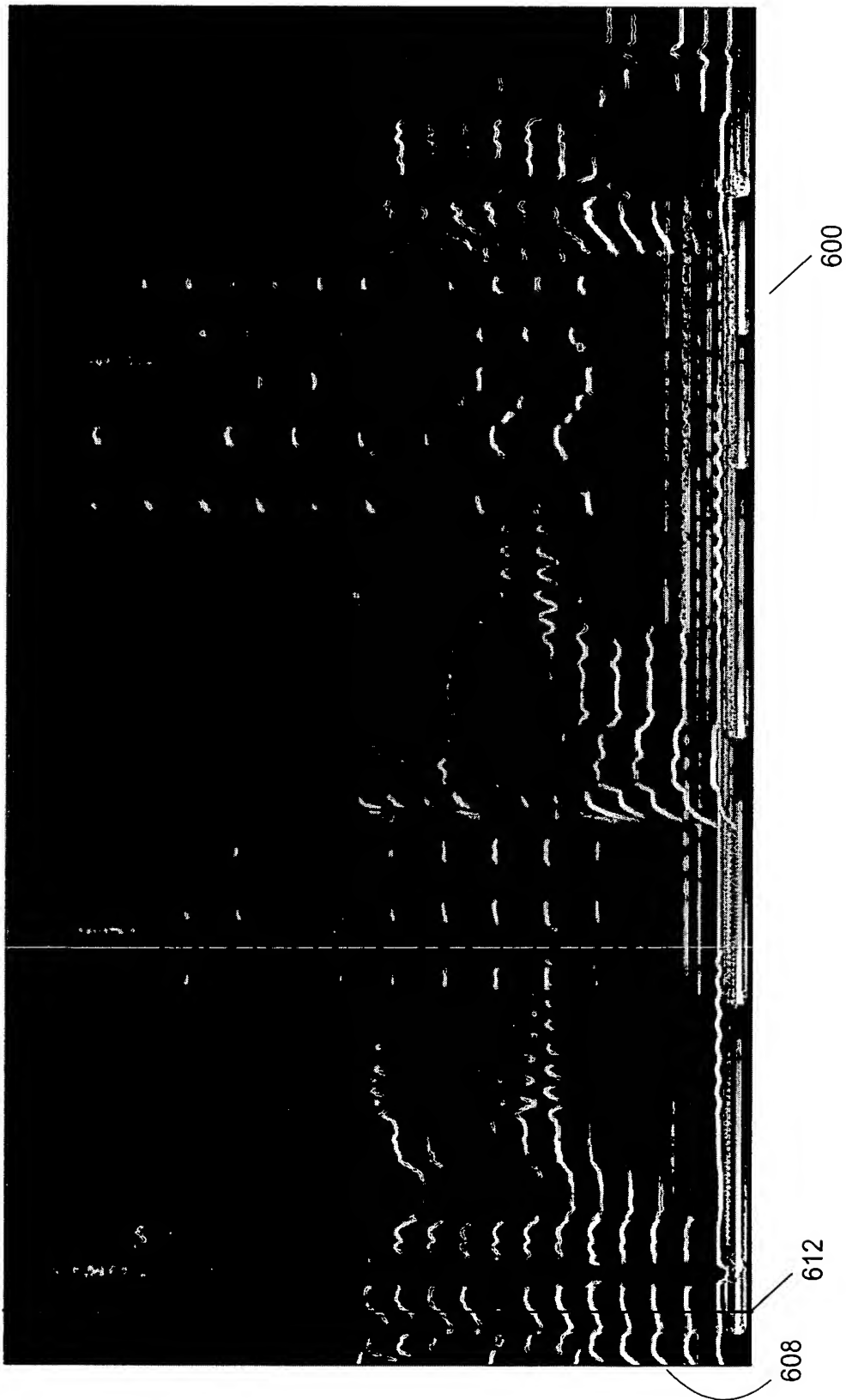
FIGURE 6A
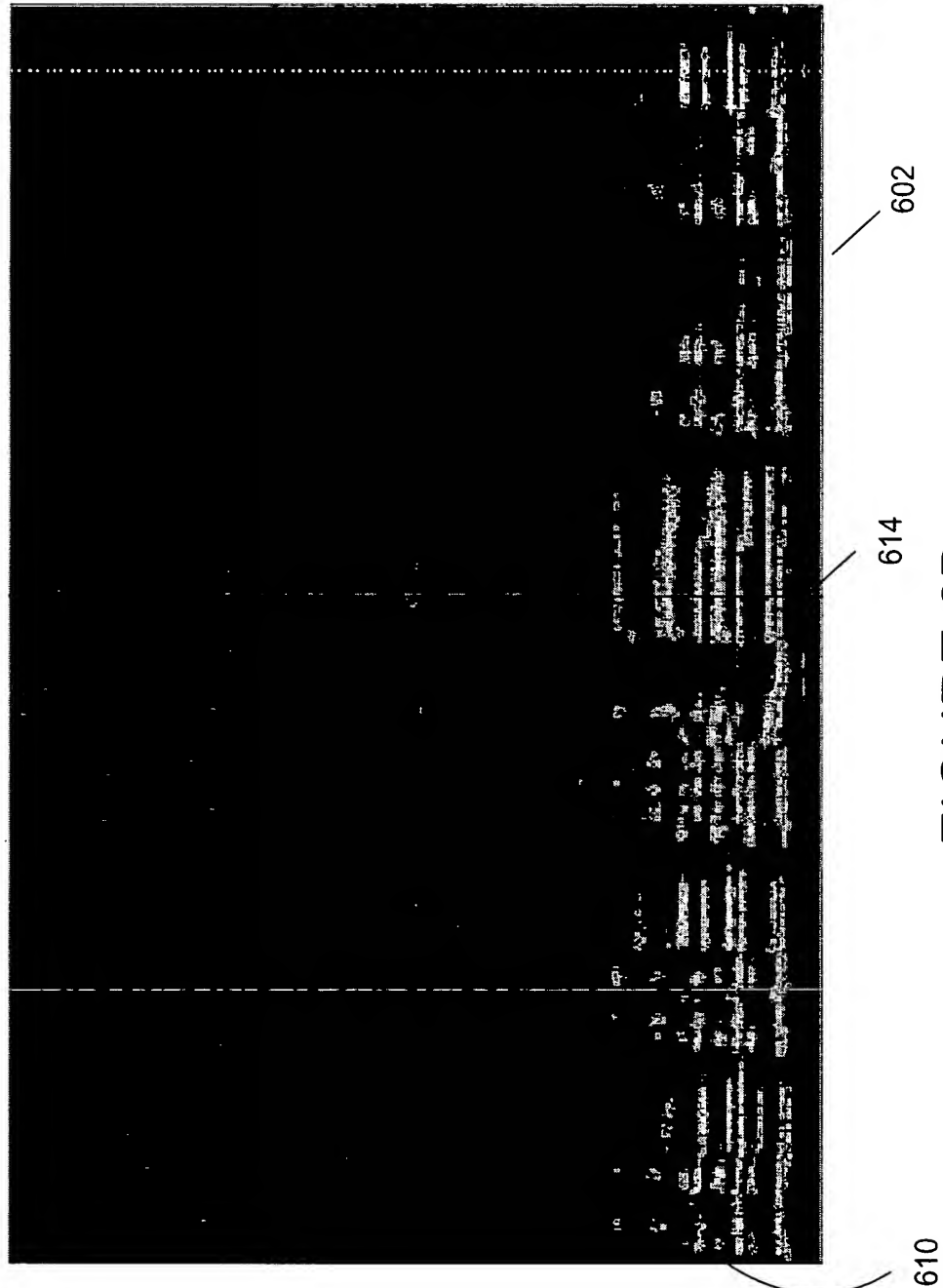
FIGURE 6B
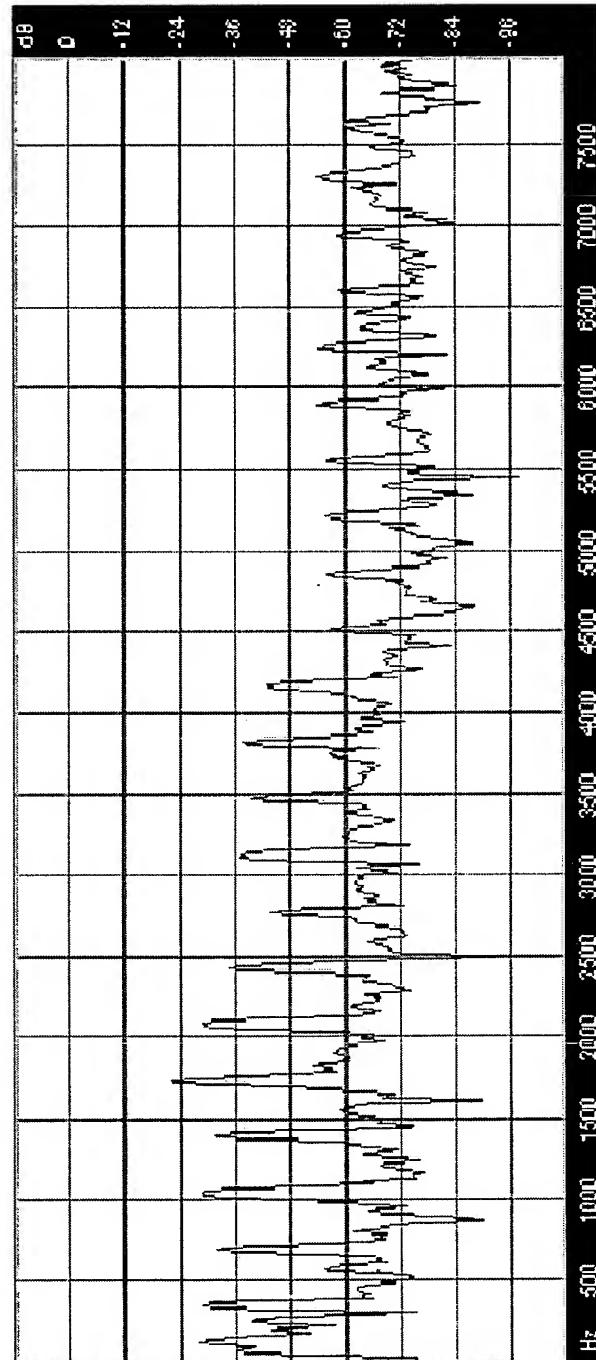
FIGURE 6C

FIGURE 6D

700

708
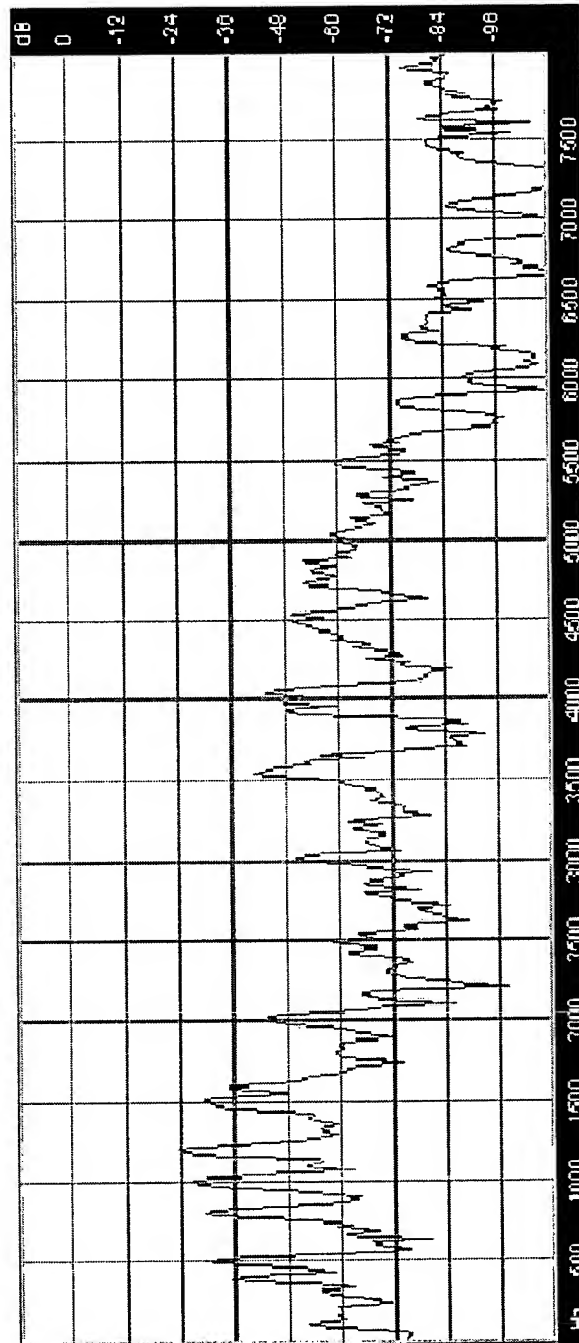
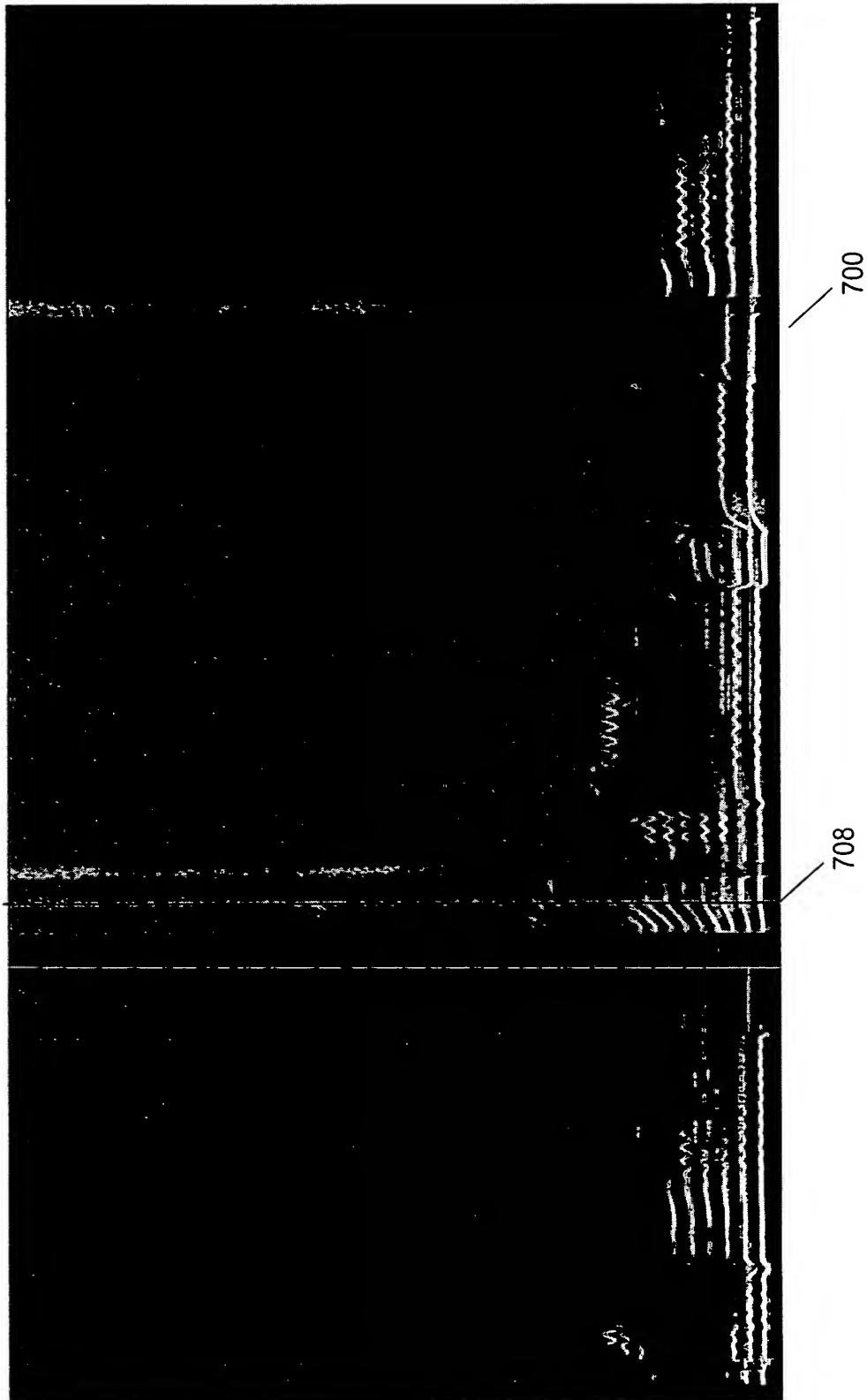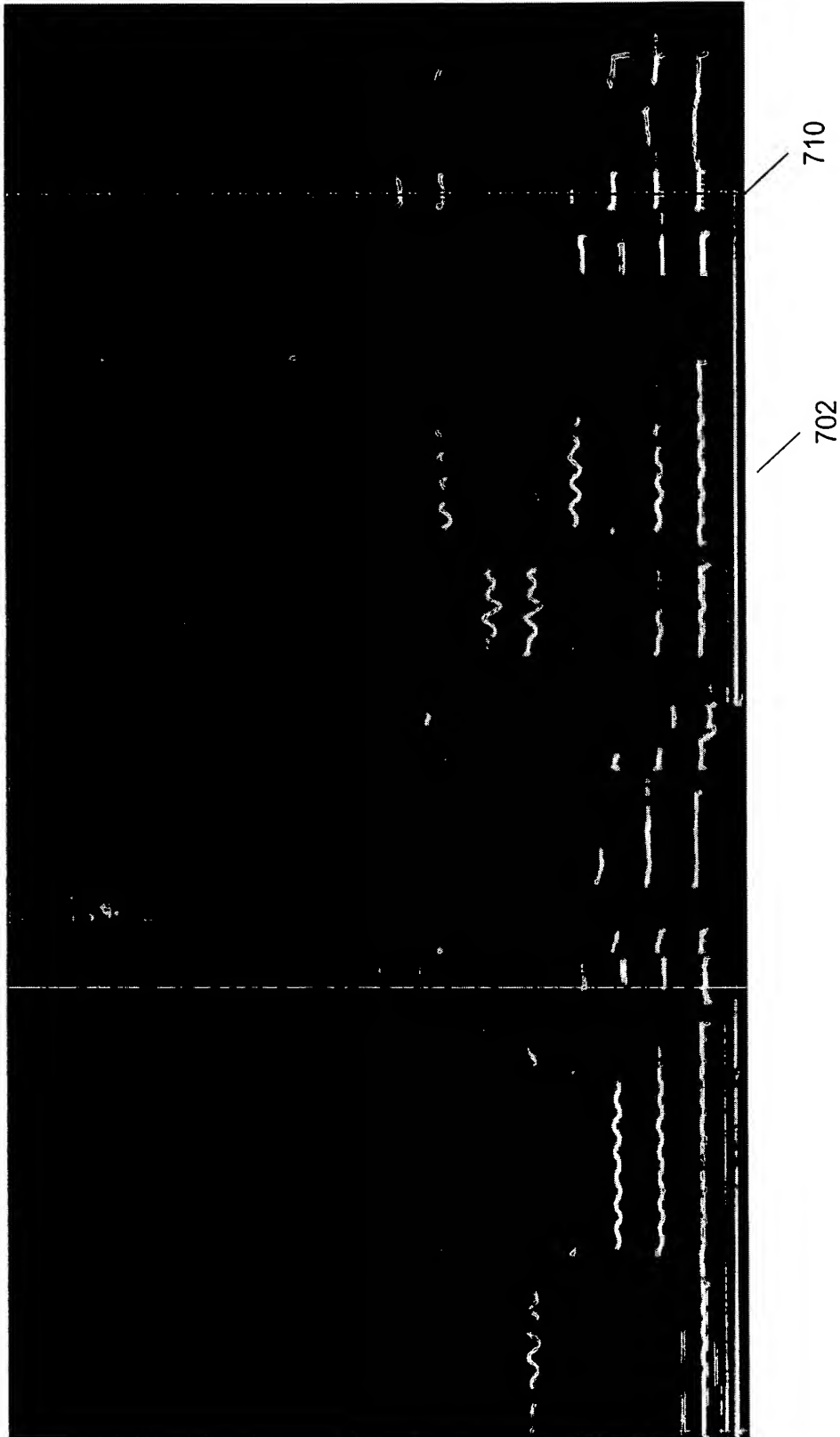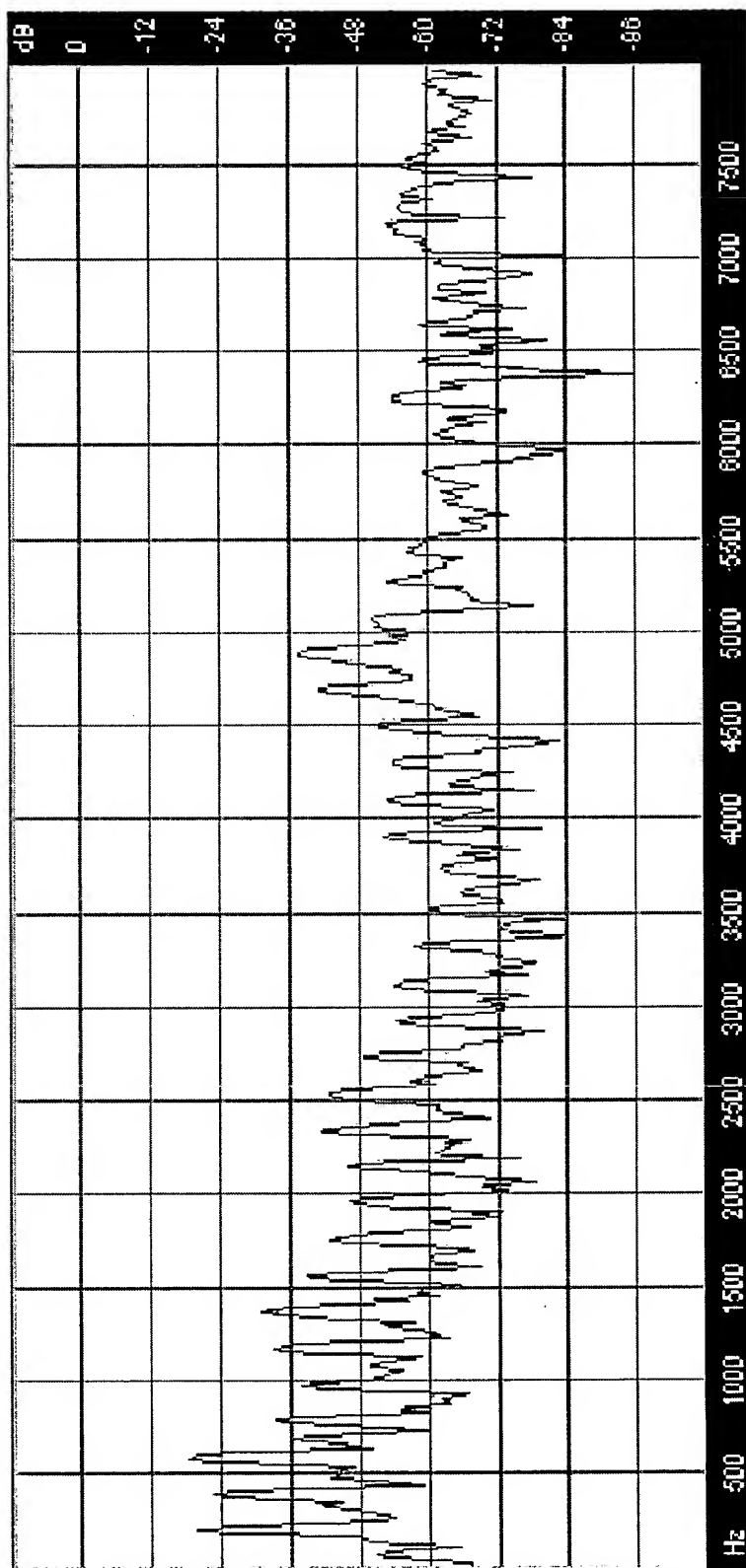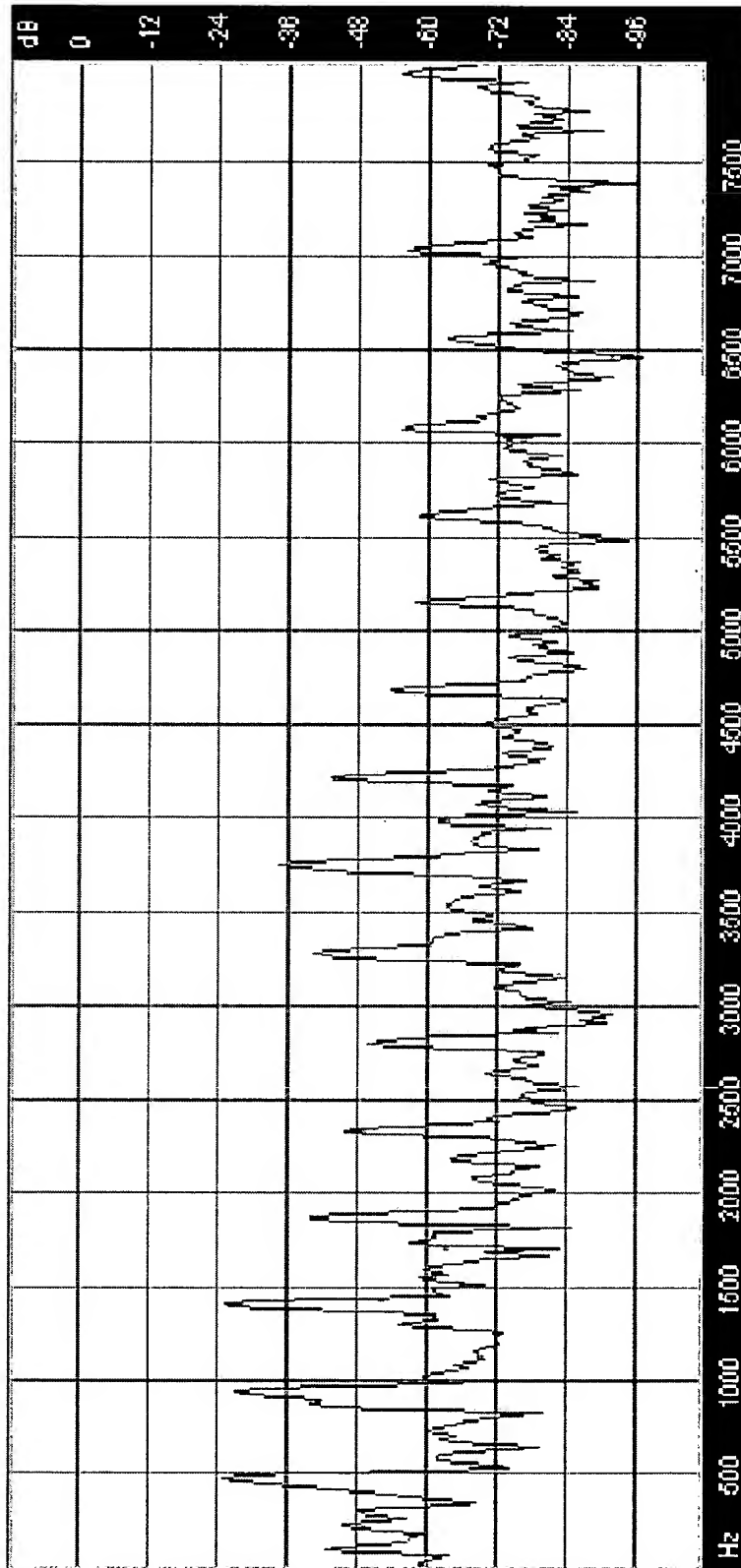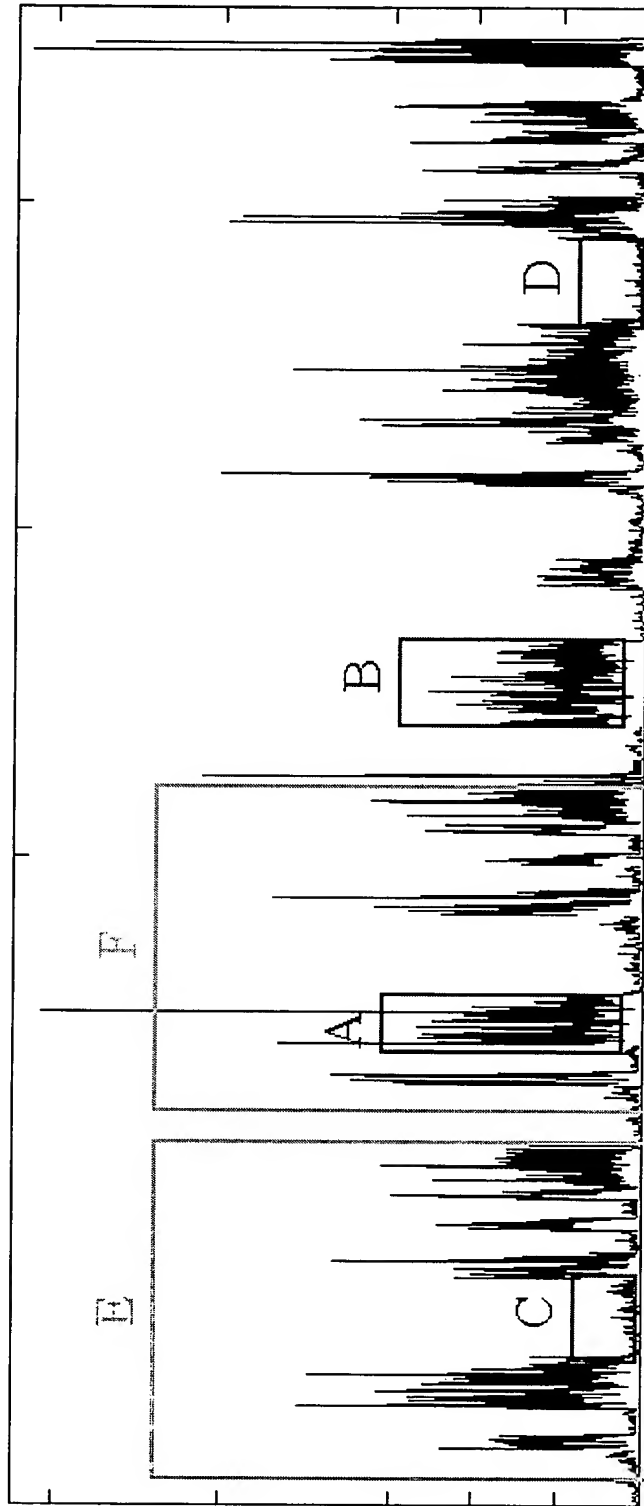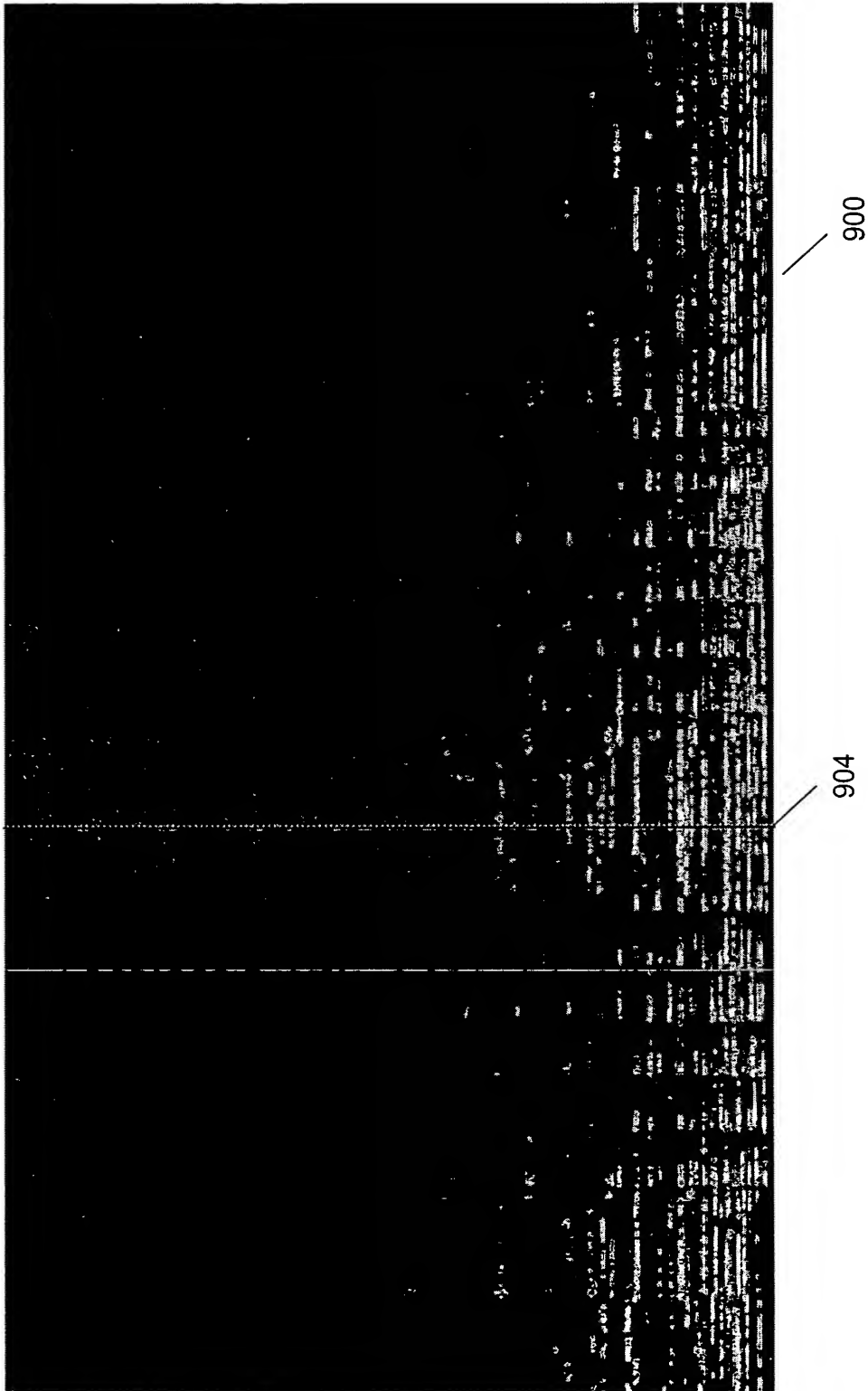FIGURE 7A

FIGURE 7B

FIGURE 7C

FIGURE 7D

FIGURE 8

FIGURE 9A

FIGURE 9B

FIGURE 10